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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/295,463	04/13/1999	LEX M. COWSERT	ISIS-3455	7206

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09/10/2002

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EXAMINER

MARSCHER, ARDIN H

ART UNIT

PAPER NUMBER

1631

DATE MAILED: 09/10/2002

19

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

09/295,463

Applicant(s)

Cowser et al.

Examiner

Ardin Marschel

Art Unit

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136 (a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on Jun 18, 2002
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11; 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 55, 56, 58-72, 74-87, and 99-102 is/are pending in the application.
- ~~Claim(s) 1-54, 57, 73, 88-98, and 103 have been canceled. ~~is/are withdrawn from consideration.~~~~
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 55, 56, 58-72, 74-87, and 99-102 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claims _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- 11) ☐ The proposed drawing correction filed on _____ is: a) ☐ approved b) ☐ disapproved by the Examiner.
If approved, corrected drawings are required in reply to this Office action.
- 12) ☐ The oath or declaration is objected to by the Examiner.

Priority under 35 U.S.C. §§ 119 and 120

- 13) ☐ Acknowledgement is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
a) ☐ All b) ☐ Some* c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
*See the attached detailed Office action for a list of the certified copies not received.
- 14) ☐ Acknowledgement is made of a claim for domestic priority under 35 U.S.C. § 119(e).
a) ☐ The translation of the foreign language provisional application has been received.
- 15) ☐ Acknowledgement is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

Attachment(s)

- 1) ☐ Notice of References Cited (PTO-892) 4) ☐ Interview Summary (PTO-413) Paper No(s). _____
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948) 5) ☐ Notice of Informal Patent Application (PTO-152)
- 3) ☐ Information Disclosure Statement(s) (PTO-1449) Paper No(s). _____ 6) ☐ Other:

Applicants' arguments, filed 6/18/02, have been fully considered but they are not deemed to be persuasive. Rejections and/or objections not reiterated from previous office actions are hereby withdrawn. The following rejections and/or objections are either reiterated or newly applied. They constitute the complete set presently being applied to the instant application.

The following is a quotation of 35 U.S.C. § 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

This application currently names joint inventors. In considering patentability of the claims under 35 U.S.C. § 103, the examiner presumes that the subject matter of the various claims was commonly owned at the time any inventions covered therein were made absent any evidence to the contrary. Applicant is advised of the obligation under 37 C.F.R. § 1.56 to point out the inventor and invention dates of each claim that was not commonly owned at the time a later invention was made in order for the examiner to consider the applicability of potential 35 U.S.C. § 102(f) or (g) prior art under 35 U.S.C. § 103(a).

Claims 55, 56, 58-72, 74-87, and 99-102 are rejected under 35 U.S.C. § 103(a) as being unpatentable over Agrafiotis et al. (P/N 5,463,564); taken in view of Uhlmann et al. (1990); taken further in view of Dower et al. (P/N 5,639,603); taken further in

view of either of Haff et al. (P/N 5,720,923) or Harris et al. (P/N 5,650,122).

This rejection is reiterated and maintained from the previous office action, mailed 3/12/02. Applicants firstly argue that Agrafiotis et al. does not describe the steps of *in silico* generation, evaluation, etc. a library of virtual compounds. In response applicants are directed to the very front page of Agrafiotis et al. where a diagram therein clearly depicts a synthesis protocol generator which combines reagent data with desired properties to not only generate robotic synthesis instructions but also new leads which clearly show a plurality (library) of compound generation and evaluation as required for the generation of such synthesis instructions. The input of desired activity/properties information results in synthesis instructions only via some type of evaluation of compounds (leads) within the system/computer as also emphasized in the abstract of Agrafiotis et al. This argument is therefore contrary to the factual basis for the rejection and thus non-persuasive. Applicants then argue that evaluation is only performed after synthesis. In response the above discussion notes that evaluation of desired activity or properties are performed before instructions for synthesis and thus this argument is non-persuasive. It is noted again by considering the very front page of Agrafiotis et al. that assays are also

performed after synthesis robotically in the block entitled therein "ANALYSIS ROBOT(S)". Applicants then argue that the instant invention utilizes an iterative process to design the desired compounds which is not in Agrafiotis et al. Again without going beyond the very front page of Agrafiotis et al. the analyzed compounds generate a database at the righthand side of the depiction which is fed back with at least one iteration of information to the "SYNTHESIS PROTOCOL GENERATOR". Thus, applicants' argument is contrary to the factual description in Agrafiotis et al. and non-persuasive. Applicants then go on to argue that specific design criteria are utilized in the instant invention regarding nucleic acid design. In response this rejection is based on a combination of references wherein the generic *in silico* design and compound design description in Agrafiotis et al. motivates generically the practice of such a process with any compound design from the art via said generic motivation. The reference by Uhlmann et al., for example, covers antisense nucleic acid design as a review article as well as Dower et al. being directed to automated oligonucleotide synthesis. Thus, this argument is also contrary to the factual descriptions in the combination of references supporting this rejection and thus non-persuasive. Applicants then argue several legal decisions which merely summarize that the disclosure as well as motivation to combine references must come from the

references themselves and not from the invention under examination. This argument is non-persuasive because this rejection as originally stated and reiterated is based solely on the various descriptions in the references and thus the argument is moot as being directed to disclosure in the instant claims which were nowhere utilized to support this rejection. In summary, this rejection is still deemed proper and is maintained.

No claim is allowed.

THIS ACTION IS MADE FINAL. Applicants are reminded of the extension of time policy as set forth in 37 C.F.R. § 1.136(a).

A SHORTENED STATUTORY PERIOD FOR RESPONSE TO THIS FINAL ACTION IS SET TO EXPIRE THREE MONTHS FROM THE DATE OF THIS ACTION. IN THE EVENT A FIRST RESPONSE IS FILED WITHIN TWO MONTHS OF THE MAILING DATE OF THIS FINAL ACTION AND THE ADVISORY ACTION IS NOT MAILED UNTIL AFTER THE END OF THE THREE-MONTH SHORTENED STATUTORY PERIOD, THEN THE SHORTENED STATUTORY PERIOD WILL EXPIRE ON THE DATE THE ADVISORY ACTION IS MAILED, AND ANY EXTENSION FEE PURSUANT TO 37 C.F.R. § 1.136(a) WILL BE CALCULATED FROM THE MAILING DATE OF THE ADVISORY ACTION. IN NO EVENT WILL THE STATUTORY PERIOD FOR RESPONSE EXPIRE LATER THAN SIX MONTHS FROM THE DATE OF THIS FINAL ACTION.

Papers related to this application may be submitted to Technical Center 1600 by facsimile transmission. Papers should be faxed to Technical Center 1600 via the PTO Fax Center located in Crystal Mall 1. The faxing of such papers must conform with the notices published in the Official Gazette, 1096 OG 30 (November 15, 1988), 1156 OG 61 (November 16, 1993), and 1157 OG 94 (December 28, 1993) (See 37 CFR § 1.6(d)). The CM1 Fax Center number is either (703)308-4242 or (703)305-3014.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Ardin Marschel, Ph.D., whose telephone number is (703)308-3894. The examiner can normally be reached on Monday-Friday from 8 A.M. to 4 P.M.

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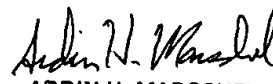
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If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Michael Woodward, Ph.D., can be reached on (703)308-4028.

Any inquiry of a general nature or relating to the status of this application should be directed to Patent Analyst, Tina Plunkett, whose telephone number is (703)305-3524 or to the Technical Center receptionist whose telephone number is (703)308-0196.

September 6, 2002


ARDIN H. MARSCHEL
PRIMARY EXAMINER